

Utility Model Patent

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**Title: Air Purifier Capable of filtrating Toxin, Removing Dust and Killing Bacteria**

**Abstract:**

A new floor model rotary air purifier comprising high voltage power supply (1), electrostatic generator (2), front rectification cover (3), air generator (5), mesh plate (7), filtration part (8), absorption part (10), UV lamp (12), rear rectification cover (13) and top cover (14), aiming to ionize air by high voltage electrostatics, eliminate toxin and kill bacteria by UV lamp irradiation, filtrating toxin and remove dust. It is with multi-function and neat structure, and able to be either placed on the desktop or hanged on the ceiling. Said top cover is detachable for the convenience of changing absorbing and filtrating materials.

**Claims:**

1. An air purifier, comprising:

One high voltage power supplier, to supply high voltage for electrodes of electrostatic generator;

At least two electrostatic generators, being equally located inside a cylinder-shaped central holder on top of high voltage container, for the purpose of ionizing air;

An air generator vertically placed on the center of said central holder, facing said filtration part, to direct the air flow;

Multi-section filtration part including framed filtrating material to remove dust;

Multi-section absorption part including framed absorbing material to absorb toxic gas and components;

A mesh plate with a top cover casing afore-said parts, and being fixed with said high voltage power supply, the feature of which including

Front rectification cover (3) locating in front of airflow passage of air generator (5), and rear rectification cover (13) locating at the rear of airflow passage, as well as said electrostatic generator (2) being equally placed on the outer circumference of front rectification cover (3), and these two rectification covers (3, 13) being on the same axis with said air generator;

Said framed filtrating material (8) surrounding rear rectification cover (13) on the same axis with said air generator showing annular in shape, and said framed absorption material (10) revolving around said framed filtrating material (8) on its outer circumference ;

At least two UV lamps being spaced apart symmetrically on the circumference between the framed filtrating material (8) and rear rectification cover (13), to prevent UV rays thereof from leaking to the outside of housing of said air purifier.

The outer circumference of mesh plate (7) to realize 360° air inlet at the bottom and 360° air outlet on the top; said top cover (14) of mesh plate, being detachable, to cover rear rectification cover (13), and by its fringe, to hold tightly said mesh plate (7);



[12] 实用新型专利说明书

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[51] Int. Cl.<sup>3</sup>

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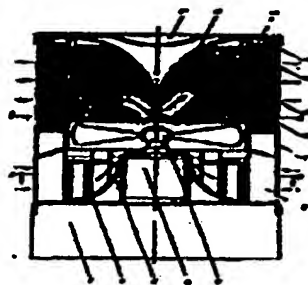
代理人 王月珍

说明书页数: 4 附图页数: 4

[54] 实用新型名称 静电除尘兼空气净化装置

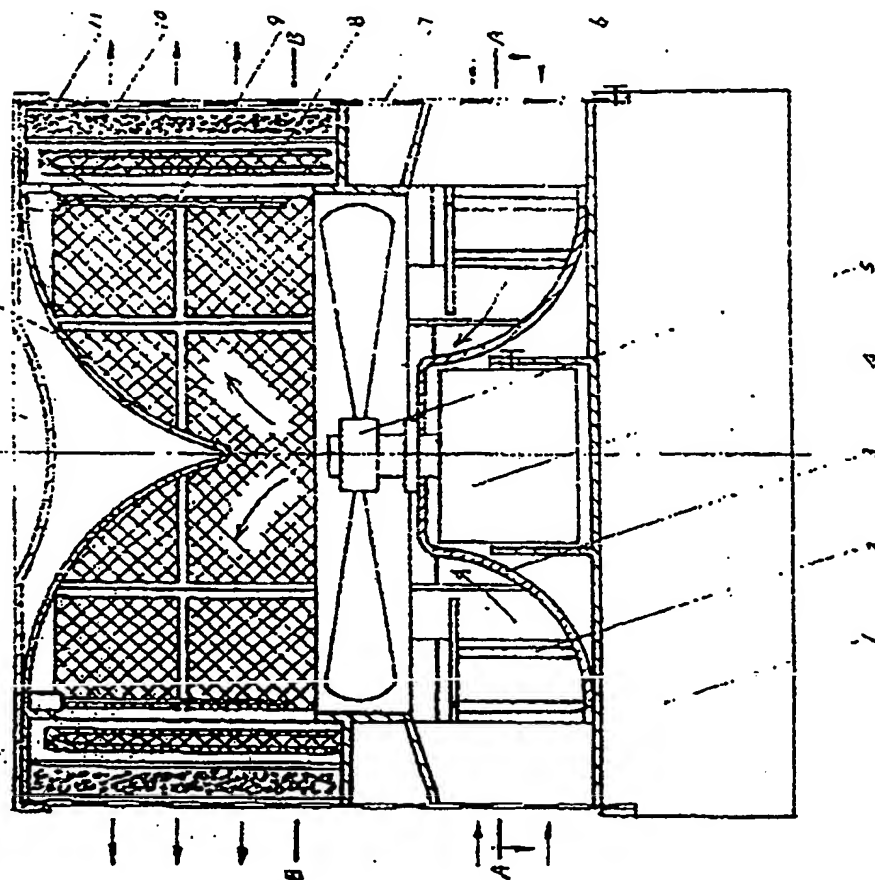
[57] 摘要

一种新式立式回转型空气过滤净化器, 主要由高压电源 (1)、静电发生器 (2)、前整流罩 (3)、风机 (5)、网护网板 (7)、过滤部分 (8)、吸附部分 (10)、紫外线灯 (12)、后整流罩 (13) 和顶盖 (14) 构成。采用高压静电电离、紫外线照射消毒杀菌、滤毒和除尘四种措施, 功能多而且结构小型紧凑, 可放置桌面上, 也可悬挂于房顶天花板上。其中顶盖可拆卸, 以便于更换吸附材料和过滤材料。



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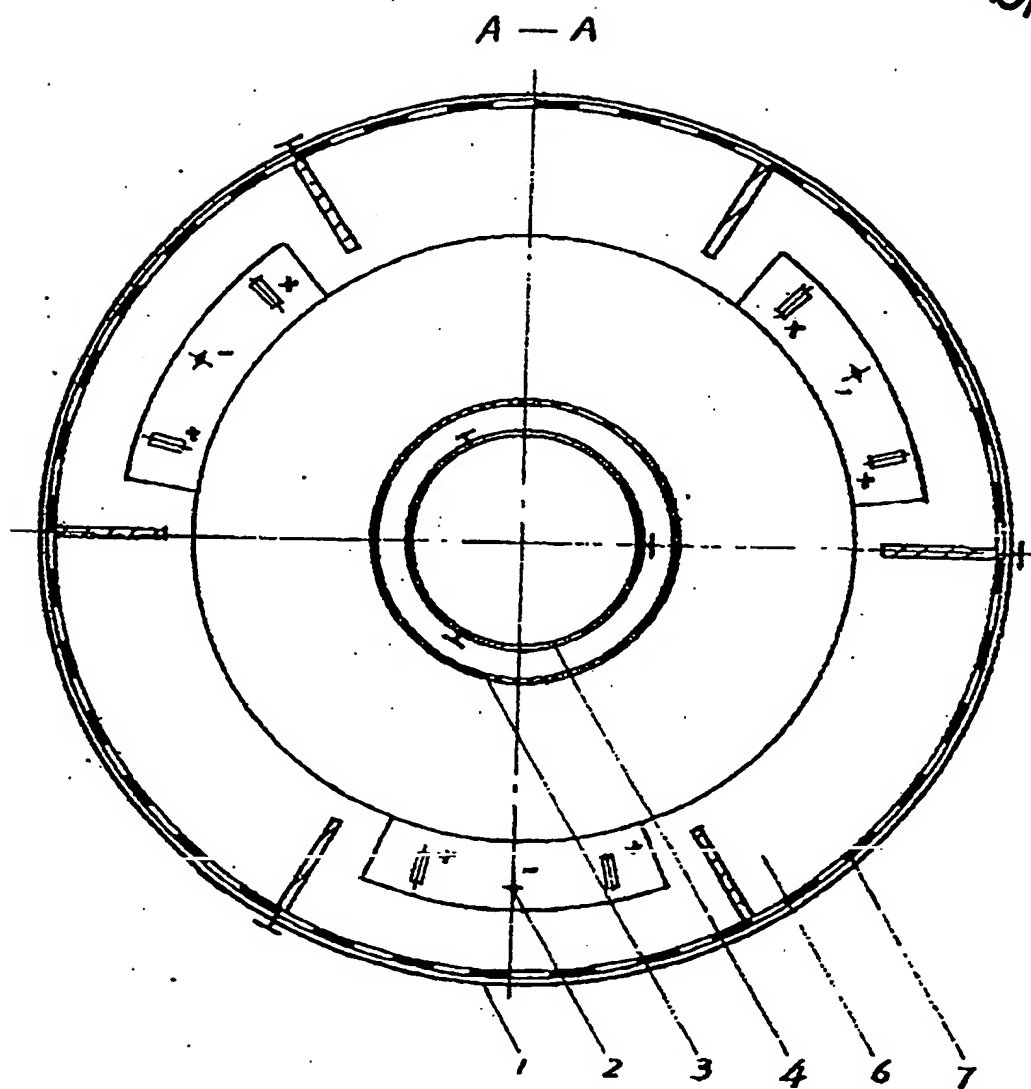


图 2

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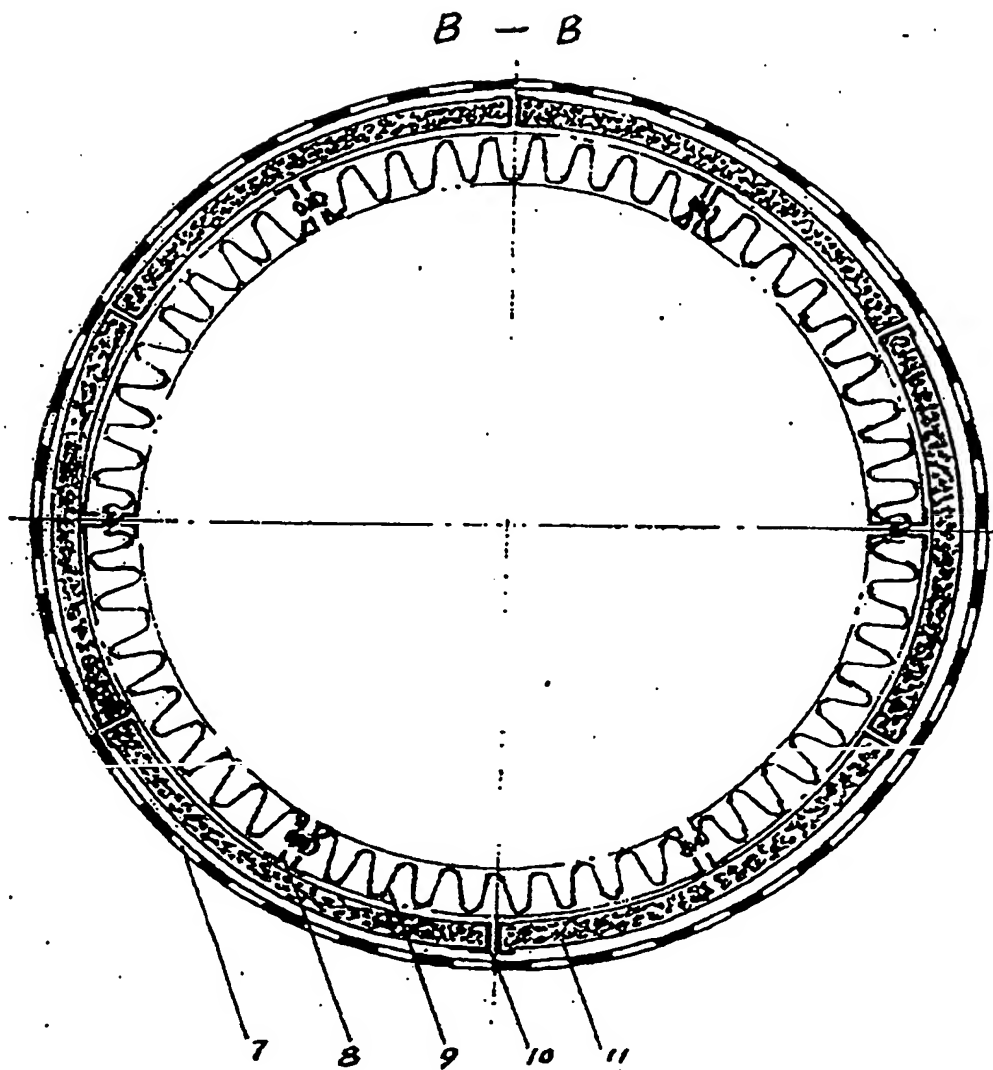


图 3

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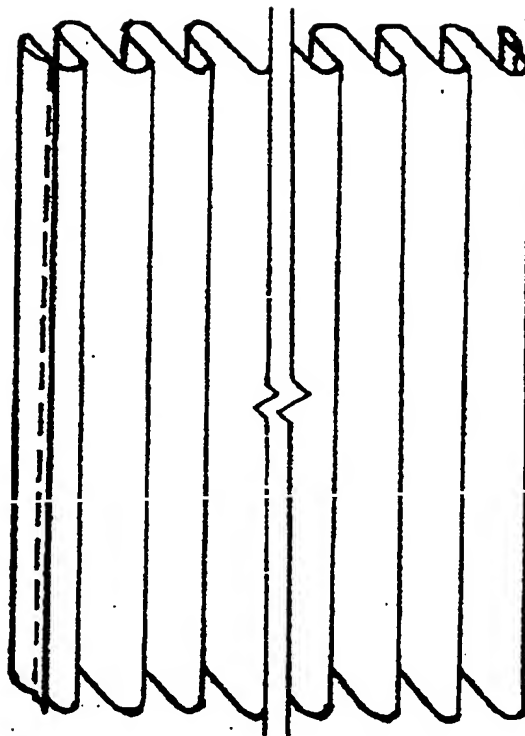


图 4